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22907 7590 06/30/2009

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WASHINGTON, DC 20005-4051

EXAMINER

TORRES, JOSEPH D

ART UNIT

PAPER NUMBER

2112

DATE MAILED: 06/30/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,207	08/10/2004	Amit Mate	004770.02087	8979

TITLE OF INVENTION: METHOD AND SYSTEM FOR DATA RECEPTION ACKNOWLEDGEMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$0	\$1510	09/30/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
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22907 7590 06/30/2009

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(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/030,207	08/10/2004	Amit Mate	004770.02087	8979
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nonprovisional	NO	\$1510	\$0	\$0	\$1510	09/30/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
TORRES, JOSEPH D	2112	714-748000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
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- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.**

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10/030,207	08/10/2004	Amit Mate	004770.02087	8979
22907	7590	06/30/2009	EXAMINER	
BANNER & WITCOFF, LTD. 1100 13th STREET, N.W. SUITE 1200 WASHINGTON, DC 20005-4051			TORRES, JOSEPH D	
			ART UNIT	PAPER NUMBER
			2112	
DATE MAILED: 06/30/2009				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 41 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 41 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability**Application No.**

10/030,207

Applicant(s)

MATE ET AL.

Examiner

Joseph D. Torres

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment/Req. Reconsideration-After Non-Final Reject filed 03/16/2009.
2. ☒ The allowed claim(s) is/are 23,25-43 and 49-59.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

/Joseph D Torres/
Primary Examiner, Art Unit 2112

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Bradley C. Wright on 6/29/2009.

The application has been amended as follows:

Claims 1-48 were replaced with the following amended claims:

1-22. (Canceled)

23. (Currently Amended) A method comprising:

receiving a series of datagrams;

determining which of said series of datagrams have been incorrectly received;

generating a plurality of data units, each data unit having a status bit indicative of the status of the data unit and a plurality of spacing bits, wherein the plurality of spacing bits from the plurality of data units together form a binary number, the binary number being the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram; and

assembling said plurality of data units together into an acknowledgement message.

24. (Canceled)

25. (Previously Presented) A method as claimed in claim 23, wherein one value of a status bit is indicative of its corresponding data unit not being the last data unit of said plurality of data units whose spacing bits together are said binary number.

26. (Currently Amended) A method as claimed in claim 23, wherein one value of a status bit is indicative of its corresponding data unit being the last data unit of said plurality of data units whose spacing bits are said binary number.

27. (Previously Presented) A method as claimed in claim 26, wherein the said predetermined number is one.

28. (Currently Amended) A method as claimed in claim 23, wherein the acknowledgement message includes data identifying the set of datagrams whose reception is described by the message.

29. (Previously Presented) A method as claimed in claim 23, wherein each data unit consists of four or more bits.

30. (Previously Presented) A method as claimed in claim 29, wherein each datagram consists of four bits.

31. (Previously Presented) A method as claimed in claim 23, comprising the further step of transmitting said acknowledgement message to a transmitter of the datagrams.

32. (Currently Amended) A method as claimed claim 23, further comprising transmitting the acknowledgement message to a transmitter over a radio link.

33. (Previously Presented) A method as claimed in claim 32, wherein the radio link is a cellular telephone radio link.

34. (Previously Presented) A method as claimed in claim 33, wherein the radio link is a wideband code division multiple access link.

35. (Currently Amended) An apparatus comprising:
a datagram checking unit configured to determine which of a plurality of datagrams received from a transmitter have been incorrectly received; and
an acknowledgement message generator configured to generate acknowledgement messages, each acknowledgement message comprising a plurality of data units, each data unit comprising:
a status bit indicative of the status of the data unit; and
a plurality of spacing bits, wherein the plurality of spacing bits from the plurality of data units together form a binary number, the binary number being the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram.

36. (Currently Amended) An apparatus as claimed in claim 35, comprising a transmitting unit configured to transmit the acknowledgement messages to the transmitter.

37. (Previously Presented) An apparatus as claimed in claim 35, comprising a memory connected to the datagram checking unit configured to store information indicating which of the datagrams has been incorrectly received.

38. (Previously Presented) An apparatus as claimed in claim 35, wherein each datagram comprises checksum information and the datagram checking unit is capable of calculating a checksum for a received datagram and comparing that checksum with the checksum information comprised in the datagram to determine whether the datagram is correctly received.

39. (Previously Presented) An apparatus as claimed in claim 35, wherein each data unit consists of four bits.

40. (Previously Presented) An apparatus as claimed in claim 35, wherein the acknowledgement generator is implemented in hardware.

41. (Previously Presented) An apparatus as claimed in claim 35, wherein the apparatus is a radio receiver.

42. (Currently Amended) An apparatus as claimed in claim 35, wherein the apparatus is a cellular radio terminal.

43. (Currently Amended) Apparatus comprising:
means for determining which of a series of datagrams received from a transmitter have been incorrectly received; and

means for generating acknowledgement messages, each acknowledgement message comprising a plurality of a data units, each data unit comprising:

a status bit indicative of the status of the data unit; and

a plurality of spacing bits, wherein the plurality of spacing bits from the plurality of data units together form a binary number, the binary number being the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram.

44-48. (Canceled)

49. (New) A method as claimed in claim 23, comprising generating at least one further data unit, said at least one further data unit indicating a location of a first incorrectly received datagram.

50. (New) A method as claimed in claim 25, wherein said one value of the status bit indicative of its corresponding data unit not being the last data unit is zero.

51. (New) A method as claimed in claim 23, generating a burst data unit having predetermined binary bits to indicate a burst of incorrectly received datagrams and one or more burst data units, indicating the length of the burst of incorrectly received datagrams.

52. (New) A method as claimed in claim 51, wherein said predetermined binary bits are 0001.

53. (New) Apparatus as claimed in claim 35, wherein said acknowledgement message generator is configured to generate at least one further data unit indicating a location of a first incorrectly received datagram.

54. (New) Apparatus as claimed in claim 35, wherein one value of a status bit is indicative of its corresponding data unit not being the last data unit of said plurality of data units whose spacing bits together are said binary number.

55. (New) Apparatus as claimed in claim 54, wherein said one value of the status bit indicative of its corresponding data unit not being the last data unit is zero.

56. (New) Apparatus as claimed in claim 35, wherein said acknowledgement message generator is configured to generate a burst data unit having predetermined binary bits to indicate a burst of incorrectly received datagrams and one or more burst data units, indicating the length of the burst of incorrectly received datagrams.

57. (New) Apparatus as claimed in claim 56, wherein said predetermined binary bits are 0001.

58. (New) Apparatus as claimed in claim 35, wherein one value of a status bit is indicative of its corresponding data unit being the last data unit of said plurality of data units whose spacing bits are said binary number.

59. (New) Apparatus as claimed in claim 58, wherein the said predetermined number is one.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: Claim 23 is directed to a method taught in the Applicant's specification as tied to a receiving apparatus for generating feedback acknowledgement messages to inform a transmitting apparatus of packet status, the method comprising steps for "receiving a series of datagrams;

determining which of said series of datagrams have been incorrectly received;

generating a plurality of data units, each data unit having a status bit indicative of the status of the data unit and a plurality of spacing bits, wherein the plurality of spacing bits from the plurality of data units together form a binary number, the binary number being the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram; and assembling said plurality of data units together into an acknowledgement message".

The Prior art of record and in particular, Ejzak; Richard P. et al. (US 5444718 A, hereafter referred to as Ejzak) teaches a contiguous group of status bits each status bit

indicative of the status of the data unit since a 1 indicates correctly received and a 0 indicates incorrectly received; and a plurality of spacing bits comprising a group of ones (1s) together forming a binary representation of a number indicative (a group of consecutive ones between zeros is a binary number) of the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram (the number of consecutive ones between zeros provides the spacing between incorrectly receive packets).

However Ejzak does not teach a method step for generating a compressed binary representation of the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram by "generating a plurality of data units, each data unit having a status bit indicative of the status of the data unit and a plurality of spacing bits, wherein **the plurality of spacing bits from the plurality of data units together form a binary number, the binary number being the spacing** between one incorrectly received datagram and a succeeding incorrectly received datagram" [Emphasis added] as recited in claim 23.

Claims 35 and 43 are directed to an apparatus and are allowed since the method for using the apparatus of claims 35 and 43 substantially includes a step for generating "acknowledgement messages, each acknowledgement message comprising a plurality of data units, each data unit comprising:

a status bit indicative of the status of the data unit; and

a plurality of spacing bits, wherein the plurality of spacing bits from the plurality of data units together form a binary number, the binary number being the

spacing between one incorrectly received datagram and a succeeding incorrectly received datagram" and a method for "generating a plurality of data units, each data unit having a status bit indicative of the status of the data unit and a plurality of spacing bits, wherein **the plurality of spacing bits from the plurality of data units together form a binary number, the binary number being the spacing** between one incorrectly received datagram and a succeeding incorrectly received datagram" is allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott T. Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph D Torres
Primary Examiner
Art Unit 2112

/Joseph D Torres/
Primary Examiner, Art Unit 2112